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| APPLICATION NO.                    | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO |
|------------------------------------|-----------------|----------------------|---------------------|-----------------|
| 10/645,187                         | 08/21/2003      | Emilio A. Emini      | 21390               | 7065            |
| 210                                | 7590 08/05/2005 |                      | EXAMINER            |                 |
| MERCK AND CO., INC<br>P O BOX 2000 |                 |                      | WHITEMAN            | I, BRIAN A      |
| RAHWAY, NJ 07065-0907              |                 |                      | ART UNIT            | PAPER NUMBER    |
| ,                                  |                 |                      | 1635                |                 |

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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| •  | Application No.  | · Applicant(s) |  |  |  |  |  |
|--|--|----------------|--|--|--|--|--|
|  | 10/645,187   | EMINI ET AL.   |  |  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit       |  |  |  |  |  |
|  | Brian Whiteman   | 1635           |  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply  |  |                |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |  |                |  |  |  |  |  |
| Status   |  |                |  |  |  |  |  |
| 1) Responsive to communication(s) filed on   |  |                |  |  |  |  |  |
|  | ·  |                |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is  |  |                |  |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |  |                |  |  |  |  |  |
| Disposition of Claims  |  |                |  |  |  |  |  |
| 4) ☐ Claim(s) 1-36 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration.  5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) is/are rejected.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) 1-36 are subject to restriction and/or election requirement.   |  |                |  |  |  |  |  |
| Application Papers   |  |                |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |  |                |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |                |  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |  |                |  |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date   | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: |                |  |  |  |  |  |

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## **DETAILED ACTION**

Claims 1-36 are pending.

Claims 22-24 are objected to because it is not apparent if the claims further limit the product in claim 20 or the method in claim 21. Claim 21 and claim 20 both recite HIV antigen and it is not apparent which claim is being limited. However, in view of compact prosecution claims 22-24 will be considered product claims even though they depend from a method claim because the preamble of claims 22-24 is directed to a composition.

Claims 18, 19, and 31-32 are withdrawn from the election restriction because the claims are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: where the composition is administered, e.g., to a cell in vitro or to an in individual. The examiner cannot determine if the claims belong to the in vivo method in group II because of the omitted step(s). If Group II is elected in the response and the claims are amended with the omitted steps then at that time the examiner will consider whether or not the claims belong in Group II or a non-elected invention.

## Election/Restrictions

Restriction to one of the following inventions and an election of species is required under 35 U.S.C. 121:

I. Claims 1-17, 20, 22-30 and 34-36, drawn to an adenovirus comprising a recombinant adenoviral vector of serotype 34, wherein at least part of the E1

region is deleted and method of producing the recombinant adenovirus, classifiable in class 435, subclass 320.1.

II. Claims 21 and 33, drawn to a method of generating a cellular-mediated immune response in an individual comprising administering an adenovirus comprising an HIV gene, classifiable in class 424, subclass 93.2.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the adenovirus of group I can be used to make recombinant proteins in vitro as opposed to its use in an *in vivo* method. In addition, the adenovirus in group I can be used to make chimeric adenoviral vectors as opposed to delivering and expressing an HIV-1 gene in a cell *in vivo*.

Searching the inventions of Group I and II together would impose a serious search burden on the examiner. The inventions of Groups I and II have a separate search status in the art as shown by their different classifications. Moreover in the instant case, the search for the adenovirus and the method of generating a cellular-mediated immune response against HIV using the adenovirus comprising a nucleic acid are not coextensive. Group I encompasses adenovirus that do not contain a nucleic acid sequence, which is not required for the search of Group II. In contrast, the search for group II would require a text search for the method of generating a cellular-mediated immune response against HIV in addition to an adenovirus

comprising a nucleic acid encoding an HIV antigen. Prior art, which teaches an adenovirus not comprising a nucleic acid encoding an HIV antigen would not necessarily be applicable to the method of using the adenovirus comprising a nucleic acid encoding an HIV antigen. Moreover, even if the adenovirus product was known, the method of using the product may be novel and unobvious in view of the preamble or active steps.

Because these inventions are distinct for the reasons given above and the search required for each Group listed above is not required for any other Group listed above and the search for each group is not co-extensive, restriction for examination purposes as indicated is proper.

It would be unduly burdensome for the examiner to search and consider patentability of all of the presently pending claims, a restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 § 1.17(h).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter

of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of In re Ochiai, In re Brouwer and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder.

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

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In addition if applicant elect Group I, applicants are further required to elect a species from the following:

This application contains claims directed to the following patentably distinct species of the claimed invention: HIV antigen selected from HIV-1 gag, HIV-1 nef, HV-1 pol, or an HIV antigen selected from page 10, lines 31-32 (gp160, gp41, gp120, tat, rev and derivatives of thereof).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 20 and 25-29 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

In addition if applicant elect Group II, applicants are further required to elect a species from the following:

This application contains claims directed to the following patentably distinct species of the claimed invention: HIV antigen selected from HIV-1 gag, HIV-1 nef or HV-1 pol or an HIV antigen selected from page 10, lines 31-32 (gp160, gp41, gp120, tat, rev and derivatives of thereof).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 21 and 33 are generic.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Whiteman whose telephone number is (571) 272-0764. The examiner can normally be reached on Monday through Friday from 7:00 to 4:00 (Eastern · Standard Time), with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang, acting SPE - Art Unit 1635, can be reached at (571) 272-0811.

Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Application/Control Number: 10/645,187 Page 8

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Mall 1. The faxing of such papers must conform with the notice published in the Official

Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center number is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Brian Whiteman

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